

## Claims

What is claimed is:

- [c1] A method of entry distribution, comprising:
  - receiving requests by a chaining backend from an original client;
  - forwarding requests from the chaining backend to a remote server; and
  - returning results from the remote server to the original client;
  - wherein the chaining backend is a type of database plug-in that acts as a multiplexer with limited persistent storage capabilities.
- [c2] The method of claim 1, wherein the remote server is a plurality of remote servers.
- [c3] The method of claim 1, wherein standard LDAP operations are supported.
- [c4] The method of claim 1, wherein the entry distribution is hidden from the original client.
- [c5] The method of claim 1, wherein the chaining backend coexists with other backends.
- [c6] The method of claim 1, further comprising:
  - implementing pass-through authentication by the chaining backend.
- [c7] The method of claim 1, further comprising:
  - evaluating and enforcing access controls by the remote server that holds the results.
- [c8] The method of claim 1, further comprising:
  - evaluating and enforcing a plurality of access controls by the chaining backend.

- [c9] The method of claim 1, further comprising:  
maintaining a pool of connections to the remote server by the chaining backend.
- [c10] The method of claim 9, wherein the pool of connections for a bind connection is a specific pool of connections dedicated for chaining of bind requests.
- [c11] The method of claim 1, further comprising:  
examining an operation state using the chaining backend to check whether an operation is abandoned.
- [c12] The method of claim 1, further comprising:  
configuring the multiplexer to return a referral that point to the remote server holding the results.
- [c13] The method of claim 1, further comprising:  
forwarding a search size limit parameter to the remote server.
- [c14] The method of claim 1, further comprising:  
updating a time limit parameter to account for additional processing delay introduced by the multiplexer; and  
forwarding the updated time limit parameter to the remote server.
- [c15] The method of claim 1, further comprising:  
implementing pass-through authentication by the chaining backend;  
evaluating and enforcing access controls by the remote server that holds the results;  
evaluating and enforcing a plurality of access controls by the chaining backend;  
maintaining a pool of connections to the remote server by the chaining backend;  
examining an operation state using the chaining backend to check whether an operation is abandoned;

configuring the multiplexer to return a referral pointing to the remote server holding the results;  
forwarding a search size limit parameter to the remote server;  
updating a time limit parameter to account for additional processing delay introduced by the multiplexer; and  
forwarding the updated time limit parameter to the remote server.

- [c16] A directory server allowing entry distribution, comprising:
  - a chaining backend receiving a request from an original client, wherein the chaining backend is a type of database plug-in that acts as a multiplexer with limited persistent storage capabilities; and
  - a remote server receiving the request from the chaining backend;  
wherein, a result is returned to the original client from the remote server.
- [c17] The directory server of claim 16, wherein the remote server is a single remote server.
- [c18] The directory server of claim 16, wherein standard LDAP operations are supported.
- [c19] The directory server of claim 16, wherein the entry distribution is hidden from the original client.
- [c20] The directory server of claim 16, wherein the chaining backend coexists with other backends.
- [c21] The directory server of claim 16, further comprising:
  - a pass-through authentication implemented by the chaining backend.

- [c22] The directory server of claim 16, further comprising:  
a plurality of access controls evaluated and enforced by the remote server that  
holds the results.
- [c23] The directory server of claim 16, further comprising:  
a plurality of access controls evaluated and enforced by the chaining backend.
- [c24] The directory server of claim 16, further comprising:  
a pool of connections to the remote server maintained by the chaining backend.
- [c25] The directory server of claim 24, wherein the pool of connections for a bind  
connection is a specific pool of connections dedicated for chaining of bind  
requests.
- [c26] The directory server of claim 16, further comprising:  
an operation state examined using the chaining backend to check whether an  
operation is abandoned.
- [c27] The directory server of claim 16, further comprising:  
the multiplexer configured to return a referral pointing to the remote server  
holding the results.
- [c28] The directory server of claim 16, further comprising:  
a search size limit parameter forwarded to the remote server.
- [c29] The directory server of claim 16, further comprising:  
a time limit parameter updated to account for additional processing delay  
introduced by the multiplexer; and  
an updated time limit parameter forwarded to the remote server.

- [c30] The directory server of claim 16, further comprising:
- a pass-through authentication implemented by the chaining backend;
  - a plurality of access controls evaluated and enforced by the remote server that holds the results;
  - a plurality of access controls evaluated and enforced by the chaining backend;
  - a pool of connections to the remote server maintained by the chaining backend;
  - an operation state examined using the chaining backend to check whether an operation is abandoned;
  - the multiplexer configured to return a referral pointing to the remote server holding the results;
  - a search size limit parameter forwarded to the remote server;
  - a time limit parameter updated to account for additional processing delay introduced by the multiplexer; and
  - an updated time limit parameter forwarded to the remote server.
- [c31] A directory server allowing entry distribution, comprising:
- means for supporting a plurality of backends;
  - means for supporting requests spanning over the plurality of backends;
  - means for supporting pluggable distribution logic; and
  - means for chaining the plurality of backends.
- [c32] A system for entry distribution, comprising:
- means for receiving requests by a chaining backend from an original client;
  - means for forwarding requests from the chaining backend to a remote server; and
  - means for returning results from the remote server to the original client;
  - wherein the chaining backend is a type of database plug-in that acts as a multiplexer with limited persistent storage capabilities.